

# Thinking Inside The Box

An Introduction to Systematic Inventive Thinking

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Tel Aviv

Bangkok





# Past vs. Present

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***Innovation?  
What do you mean?***

***Why are you bothering me with  
this?***

**1995**

# Past Vs Present

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***Innovation?  
What do you mean?***

***Why are you bothering me with  
this?***

**1995**

***Innovation is one of  
our key values***

***Everyone is doing it.***

***Innovation is a “MUST”***

**2014**

# What happened?

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***Innovation?  
What do you mean?***

***Why are you bothering me with  
this?***

**1995**



***Innovation is one of  
our key values***

***Everyone is doing it.***

***Innovation is a “MUST”***

**2014**

# 1. Innovation is Often a Necessity



**Kodak**

**BLOCKBUSTER**

**palm**

**BlackBerry**

And on the other hand:

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amazon.com<sup>®</sup>





## 2. Innovation Means Freedom

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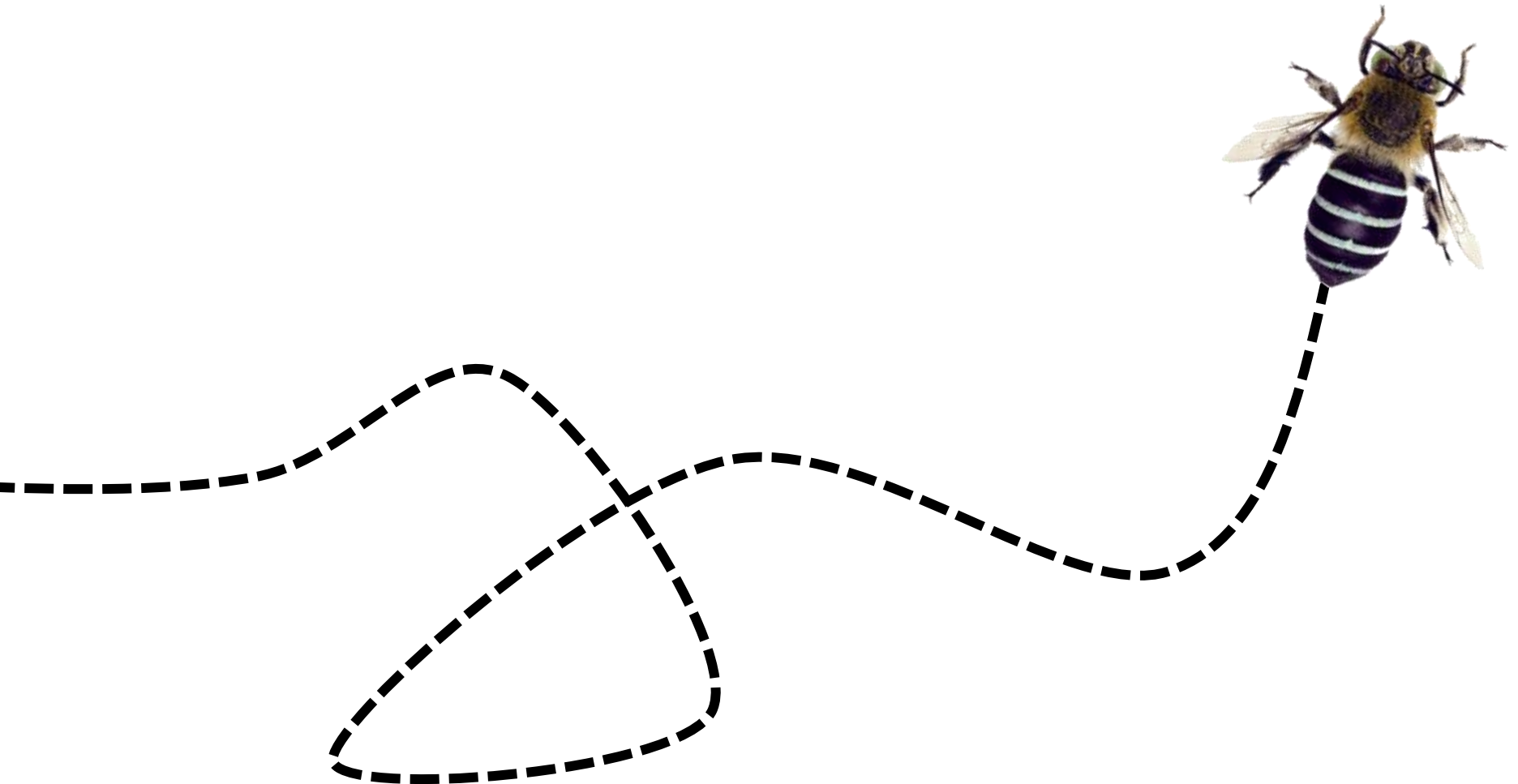


**The  
Freedom To  
Choose!**



### 3. Innovation is in fashion, “innovation” is a buzzword

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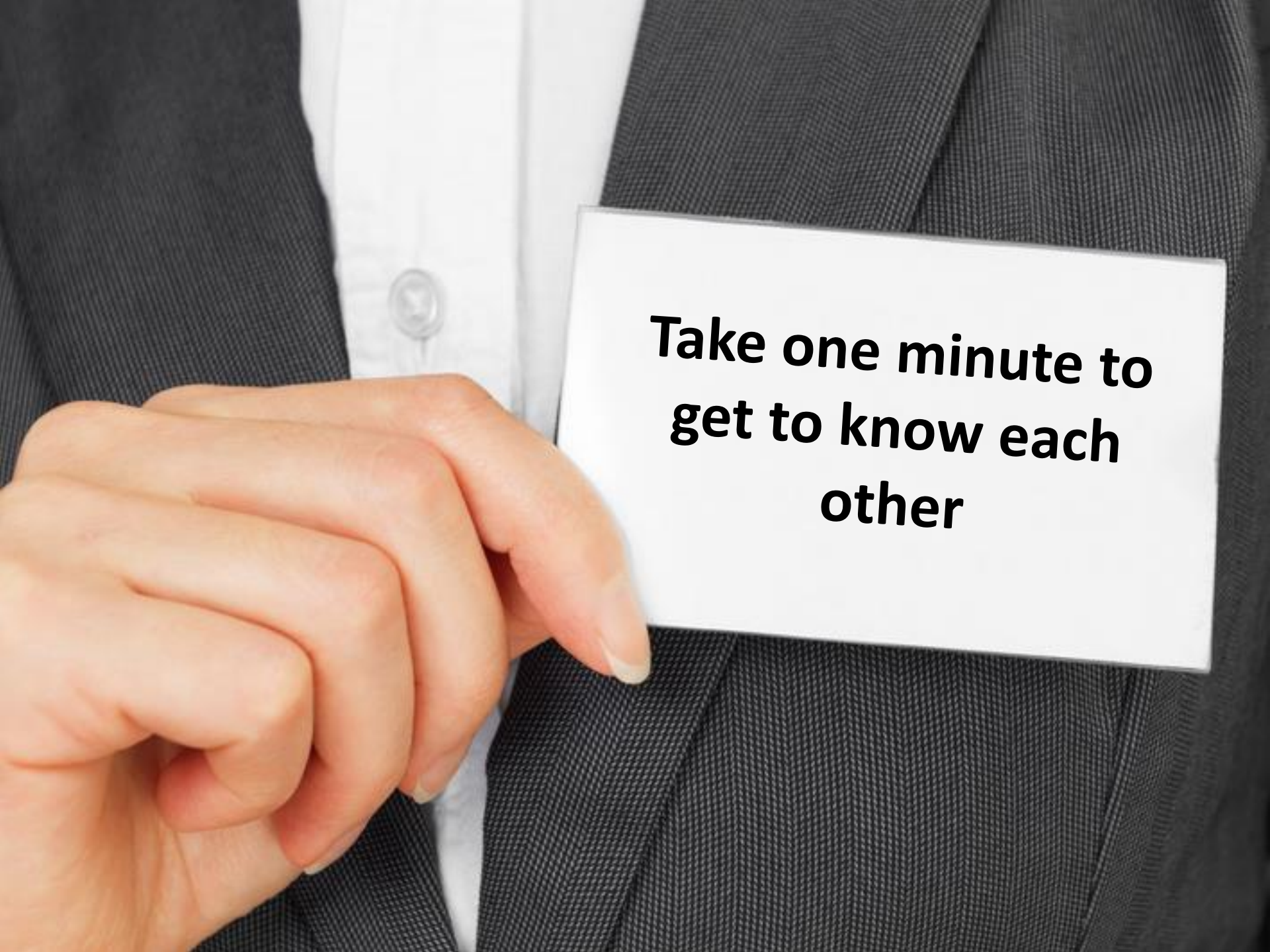
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# Today's Goals





A close-up photograph of a person's hand holding a white rectangular sign. The person is wearing a dark grey pinstriped suit jacket over a white collared shirt. The hand is positioned on the left side of the frame, with the thumb and index finger gripping the bottom edge of the sign. The sign is held at an angle, displaying the text "Take one minute to get to know each other" in a bold, black, sans-serif font. The background is slightly out of focus, emphasizing the sign and the hand.

**Take one minute to  
get to know each  
other**

In pairs, find **FIVE** things you have in common



# BUT...

It can't be **something obvious** (i.e. we're both women) and it can't be phrased in a **negative way** (i.e. both of us don't like football)



# Google



Google Search

I'm Feeling Lucky

# “Constraints Foster Innovation”

## “Necessity is the Mother of Invention”



# Systematic Inventive Thinking® is used by over 850 companies in more than 65 countries







SIT is an **innovation company** headquartered in Tel Aviv with offices and affiliates on five continents.

**60 innovation facilitators from diverse professional backgrounds** sharing a **passion for innovation**, and helping organizations and the people who work for them become more creative.



what is innovation?

Search

About 1,360,000,000 results (0.12 seconds)

A simple question....  
with more than a billion  
results



# Our Working Definition For Innovation

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**Thinking and acting differently**  
**in a useful and effective way**



# Our Working Definition For Innovation

New



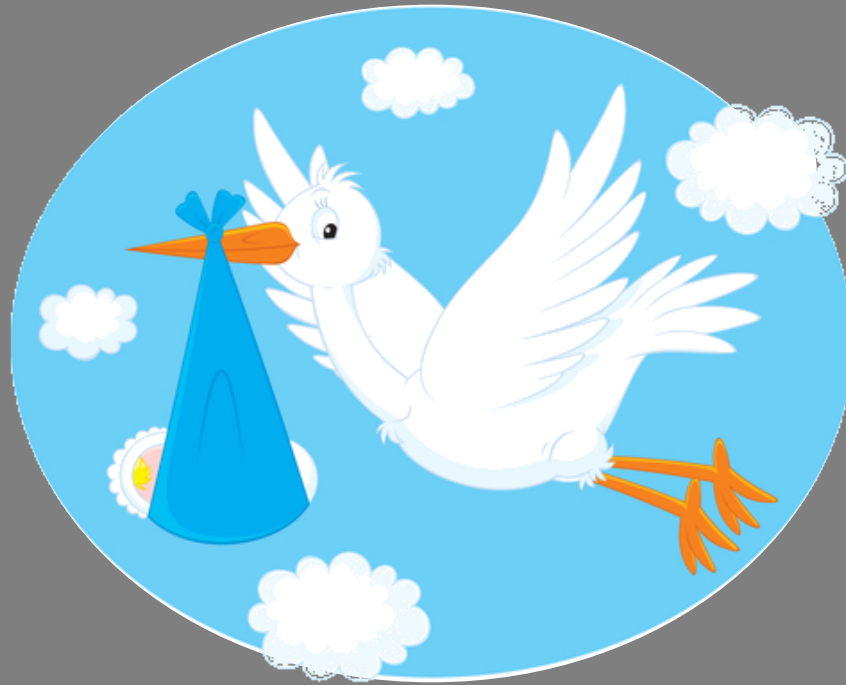
Feasible



Valuable



# Where do ideas come from?



*It's an idea!!*



**Source #1:  
Person**



**Source #2:  
Process**



**Source #3:  
Market**





**Source #4: Patterns**



# How did SIT start?

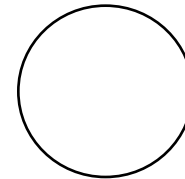
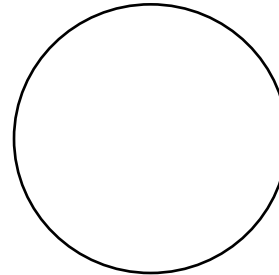
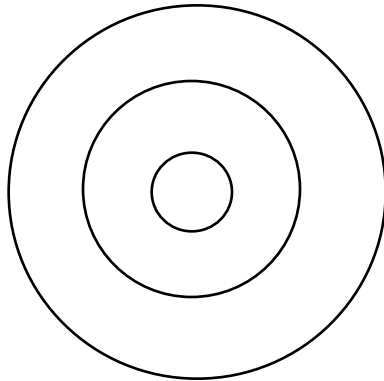
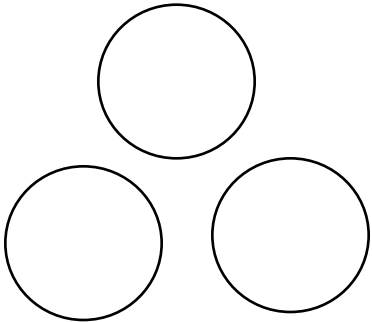
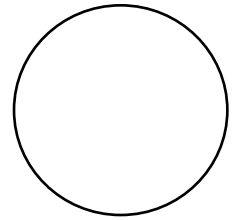
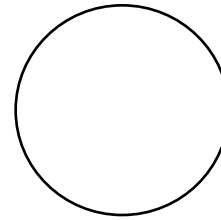
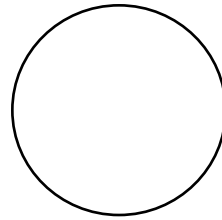
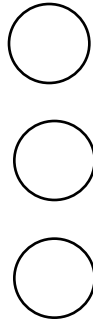
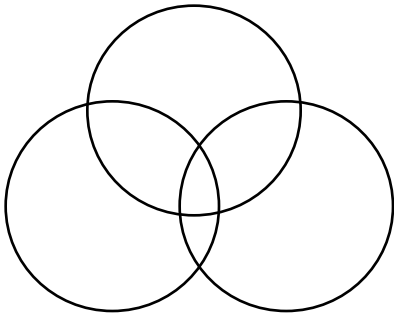




**Please  
draw  
THREE  
circles**

# Does your drawing looks like one of these?

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# **Karl Duncker's Candle Experiment (1926)**



Using only  
the objects  
shown in the  
picture,  
mount the  
candle to the  
wall

Group  
#1





Group  
#2

# Solution to Duncker's candle problem:

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**The thumbtack box can  
also be used as a shelf**



# Three Types of Fixedness

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## **#1 - Functional Fixedness:**

***A cognitive bias that limits a person to using an object only in the way it is traditionally used***



# Breaking Fixedness leads to Innovation





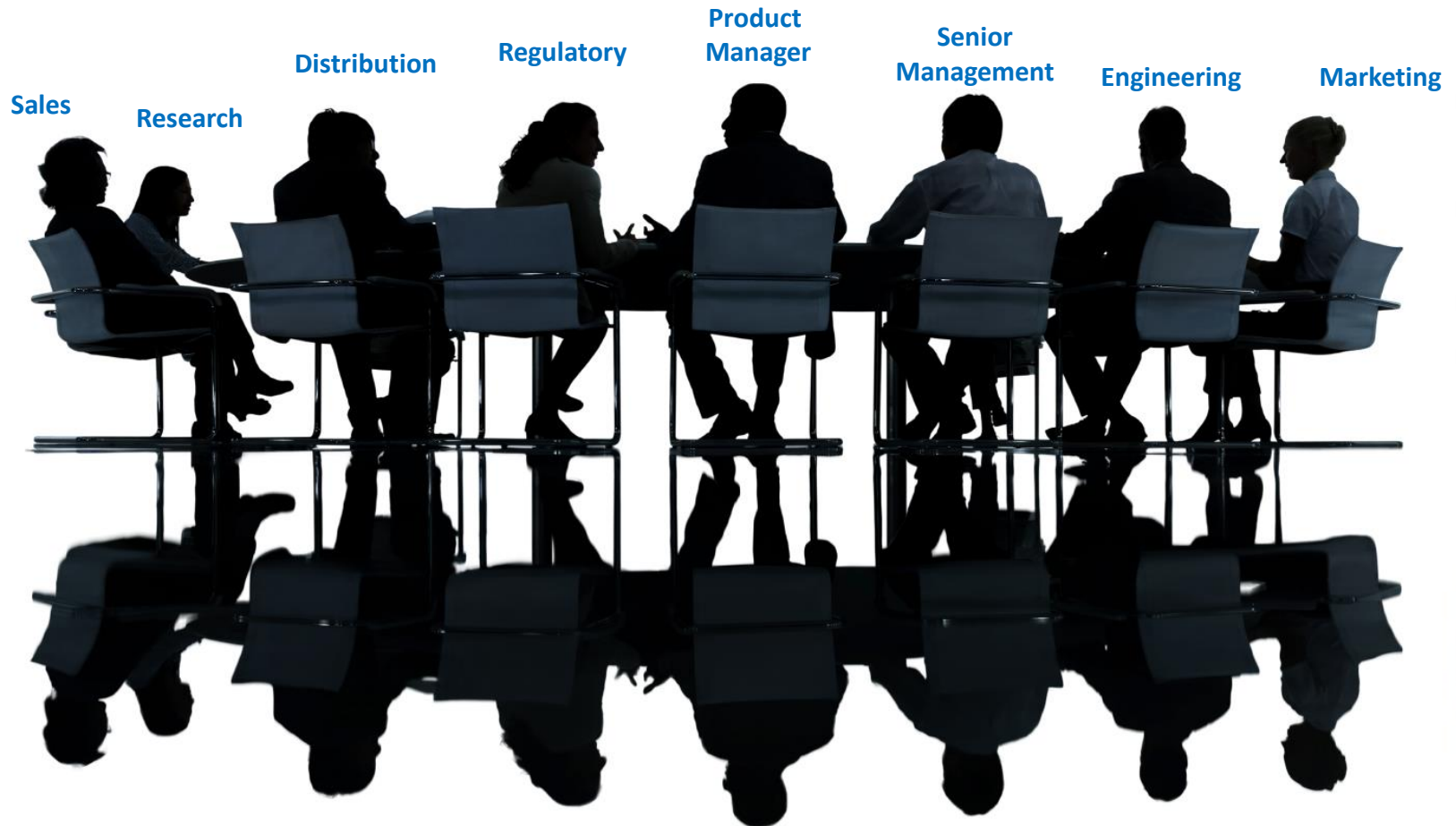


*Cincinnati*



# The Ideation Team

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# Breaking The Product Into Its Components



**Screen**

**Keyboard**

**Drug cartridge**

**Power Supply**

**Software**

**Backup Battery**

**Nasal Cannula**



# Subtracting An Essential Component !



Screen

Keyboard

Drug cartridge

Power Supply

Software



Backup Battery

Nasal Cannula



# Subtraction

Removing an essential component from a product / process / service and finding usages for the newly created product



**Remove an essential component that it seems impossible for the product to exist without it**



# The Outcome: Sedasy's System



# Learning #1: Is it The Perfect Product?!

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## Learning #2: Can it do more?





# Learning #3: Challenge Assumptions

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*Bogota*



DAVIVIENDA





A panoramic view of a city, likely Bogotá, Colombia, with a large mountain in the background under a blue sky with clouds. The city is densely packed with buildings, and the foreground shows green foliage.

**38% don't have a bank account**





**105% Cell Phone Penetration**





The advertisement features a man with dark, curly hair and a surprised expression, looking at a small black device in his hand. To his right, a smartphone displays the Movistar logo (a green 'M' above the word 'movistar' in white) on a blue screen. Above the man, a red semi-circular banner contains the 'DAVIPLATA' logo, which includes a stylized 'D' and the text 'DAVIPLATA' and 'Es Efectivo para TODOS.' Below this banner, the text 'Ahora los usuarios de Movistar pueden tener los beneficios que ofrece' is written in a black, slightly italicized font. The word 'DaviPlata' is prominently displayed in a large, red, stylized font.

DAVIPLATA  
Es Efectivo para TODOS.

Ahora los usuarios de Movistar  
pueden tener los beneficios que ofrece

**DaviPlata**

**A revolutionary electronic wallet**  
that allows unbanked and underserved  
population to manage their money for  
free without having an account

# Attribute Dependency

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**Creating a new relationship or eliminating an existing relationship between two variables of a product or service**

# After 18 months of operation...

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- ✱ **850,000 customers**, of which close to **460,000** did not have any relationship to a bank
- ✱ **108,000** money transfers have been made for more than **25,000 million** pesos
- ✱ More than **1,000** companies are disbursing their payments
- ✱ **5,000** soldiers received their paychecks through DaviPlata in 2012



**SIT**  
Systematic  
Inventive Thinking

# Learning #1: Serve the Underserved

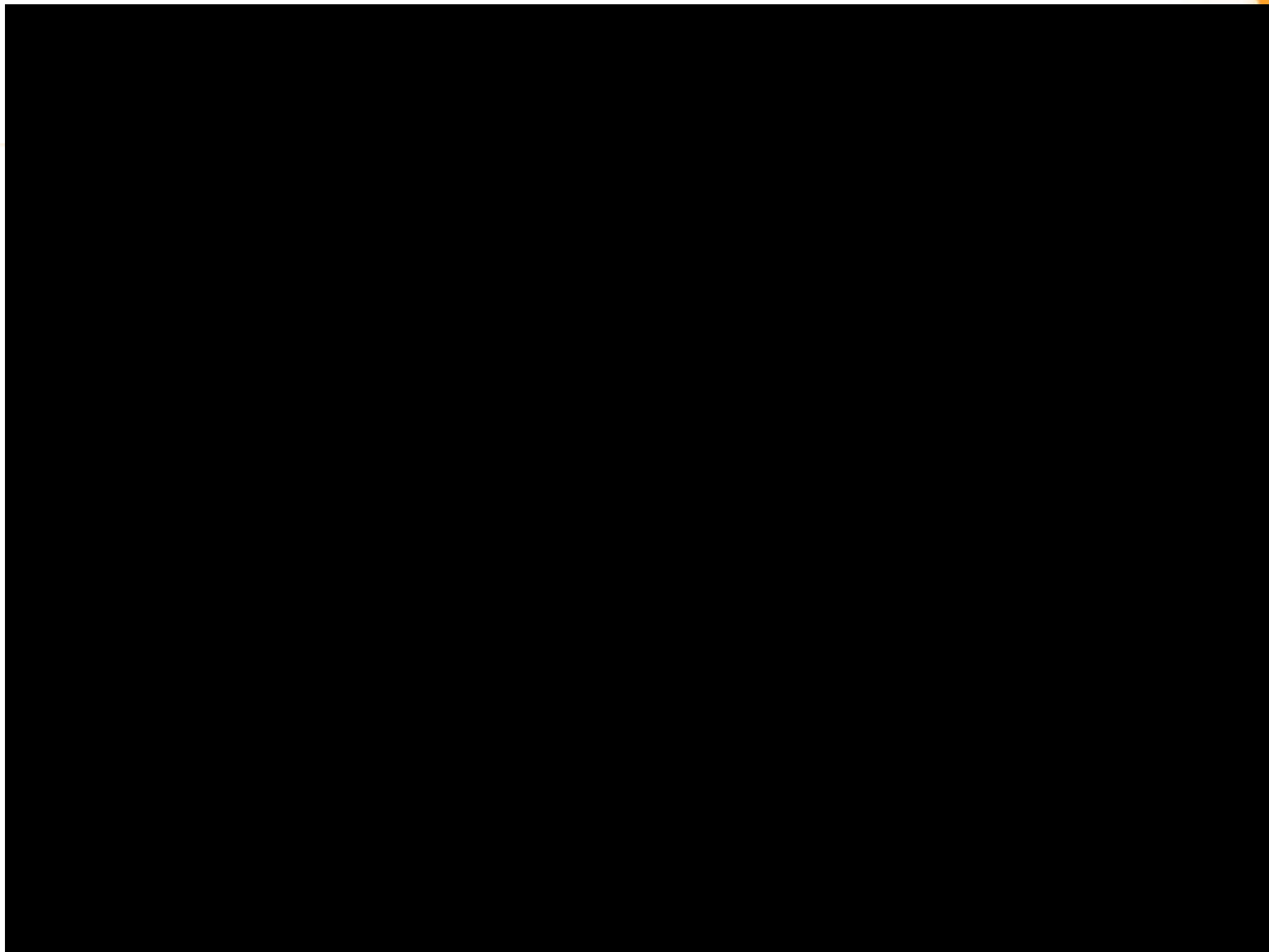




# Learning #2: Measure Innovation

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# Don't Do Innovation, Innovate In What You Do

Strategy, Policy

Operations

Human Resources

R&D

Procurement

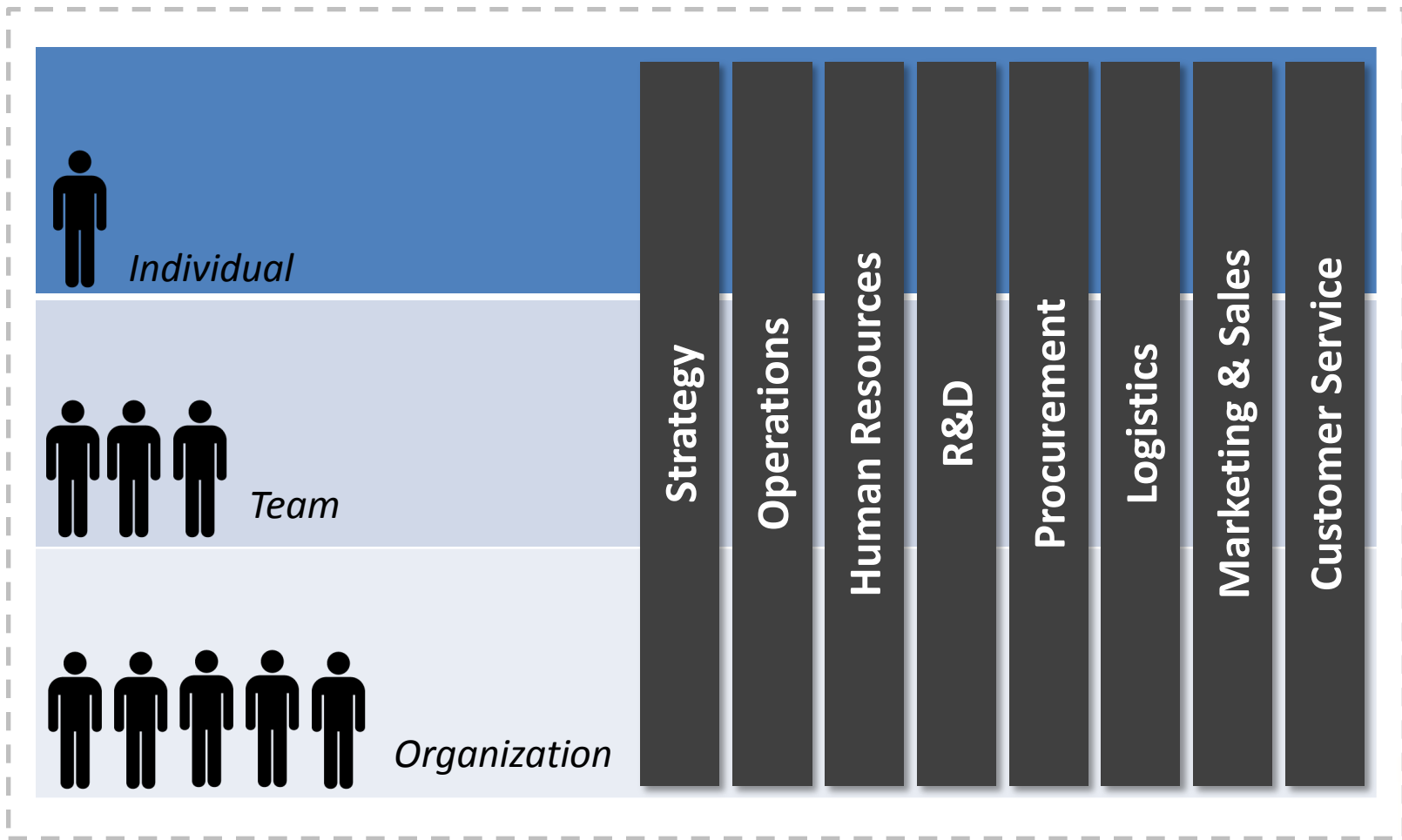
Logistics

Communications

Service



# Don't Do Innovation, Innovate In What You Do





# Key Take-Aways From Today

- ★ What is innovation
- ★ Different approaches to innovation
- ★ Innovation as a necessity in times of crisis
- ★ Types of Fixedness
- ★ Innovation Tools to overcome Fixedness
- ★ Success and failure stories






SIT


Contemporary

# Discuss...


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**Something  
new and  
meaningful I  
learned  
today...**



**Something I  
would like to  
share with  
someone  
else...**



**Something I  
would like to  
do once I get  
back to my  
office...**

# CONTACT US

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Inventive Thinking

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# **“3000 years and an SIT Project”**





# Multiplication

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**Adding additional copies of a component that already exists in the product.**

**The added component *MUST* be different from the original in some way.**



**The change needs to reflect  
a change in quality, not quantity!**

Adapt idea and  
make it doable



Identify Feasibility



Identify Customer  
Values



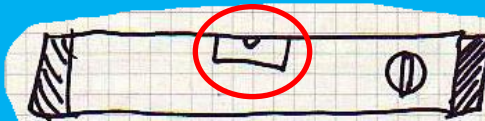
Define Virtual Product



Manipulate object



Choose object



Adapt idea and  
make it doable



Identify Feasibility



Identify Customer  
Values



Define Virtual Product



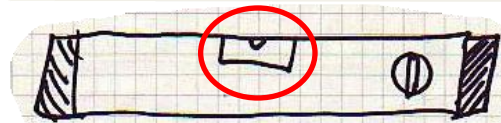
Manipulate object

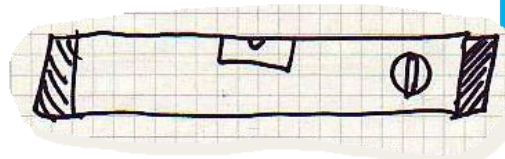
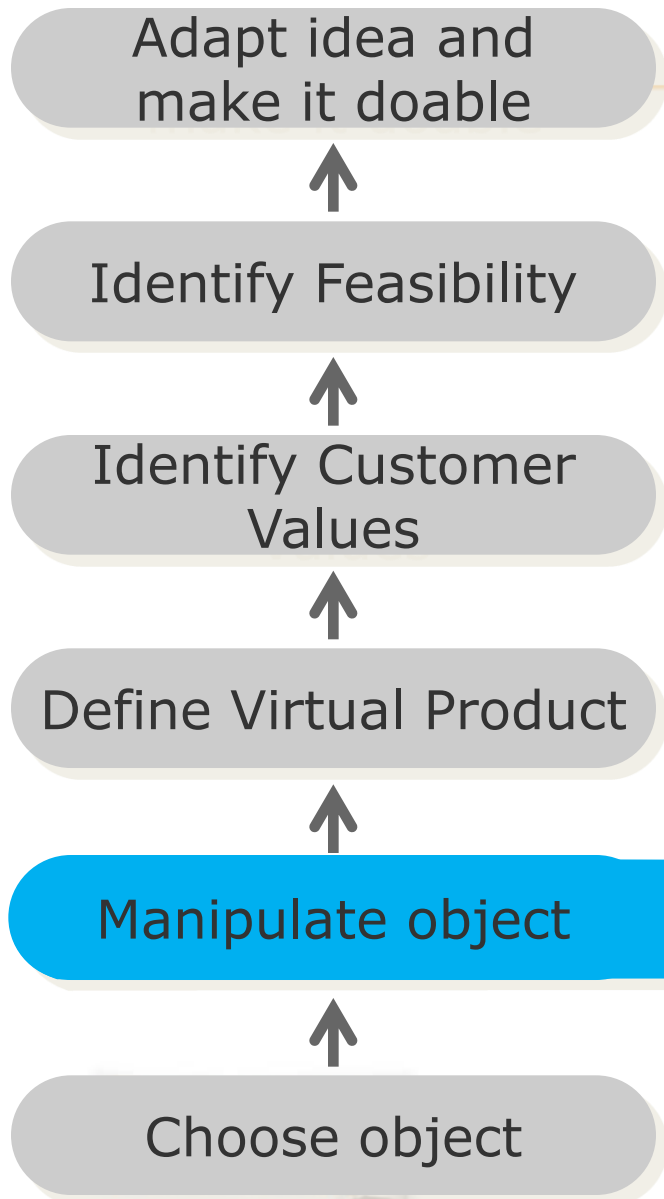


Choose object



Multiplication

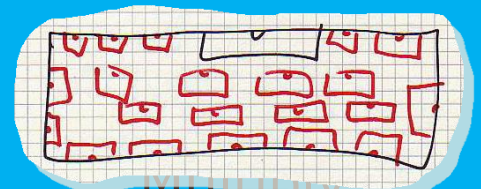




Multiplication

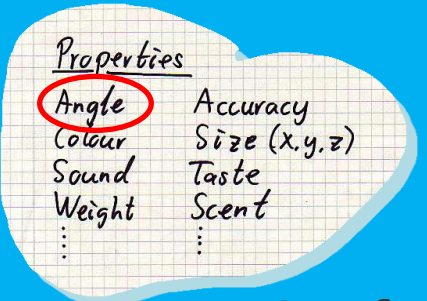


Choose one component



Multiply component

Change properties for the multiplied object





Adapt idea and  
make it doable



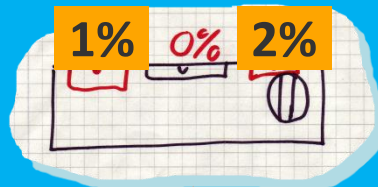
Identify Feasibility



Identify Customer Values



Define Virtual Product



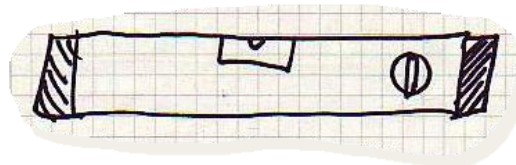
Manipulate object



Multiplication



Choose object



Adapt idea and  
make it doable



Identify Feasibility



Identify Customer Values



Define Virtual Product



Manipulate object



Choose object

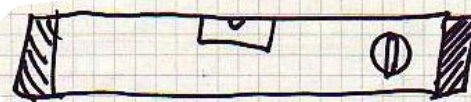
"It could be use to  
align sloping floors  
(2%) and pipes  
(1%)!"



1% 0% 2%



Multiplication



Adapt idea and  
make it doable



Identify Feasibility



Identify Customer  
Values



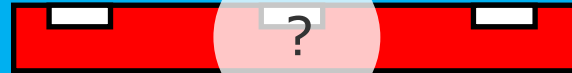
Define Virtual Product



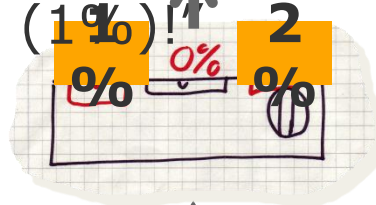
Manipulate object



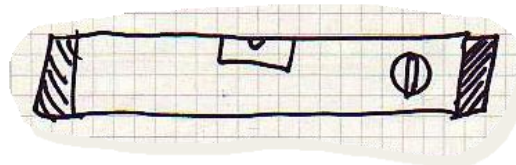
Choose object



"It could be  
use to align  
sloping floors  
(2%) and pipes  
(1%)!"



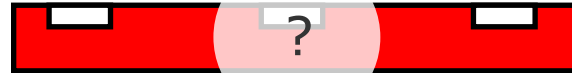
Multiplication



Adapt idea and make it doable



Identify Feasibility

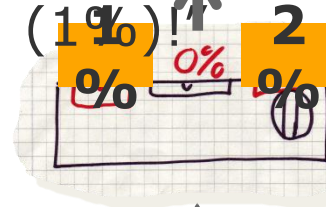


"It could be use to align sloping floors (2%) and pipes (1%)!"



Identify Customer Values

Define Virtual Product



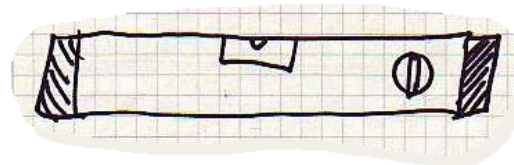
Manipulate object



Multiplication



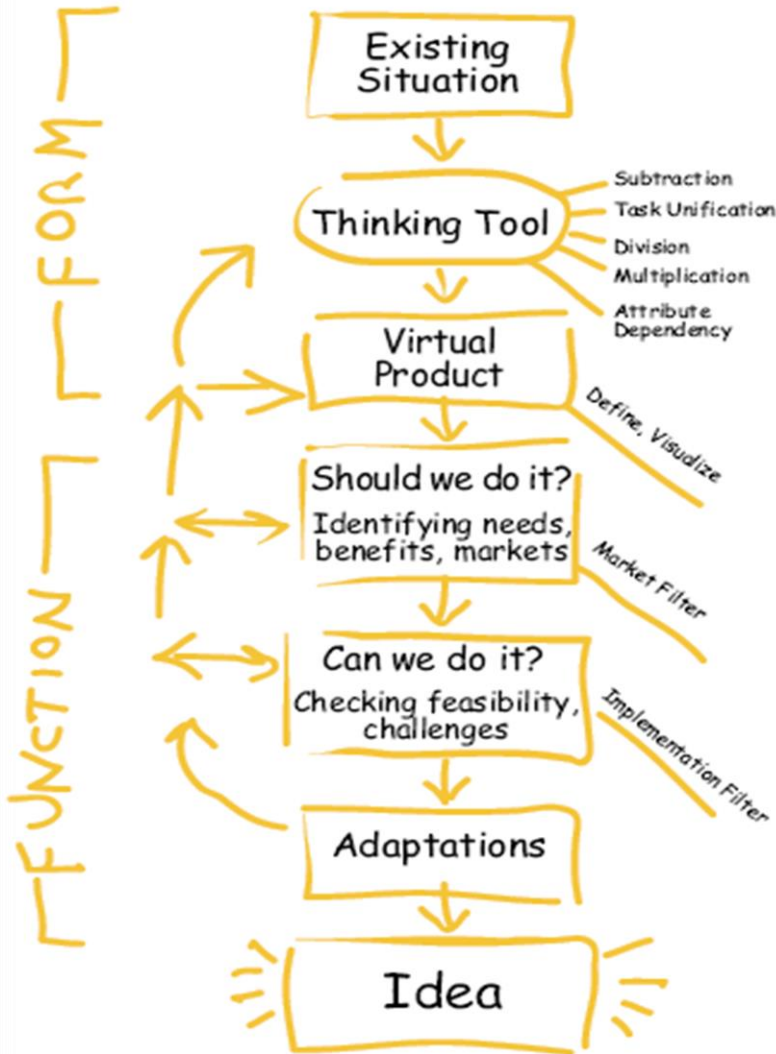
Choose object





# Function Follows Form (FFF)

When applying the Function Follows Form principle, we first create a new form and only then evaluate its function.



# Adapt idea and make it doable



**Kapro patented the idea with plumbing angles and called it “Top grade”.**

# Achievements

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- ✿ The first product doubled the revenue and tripled the profit during it's first year on the market
- ✿ Sales has grown by 250% in the past 3 years
- ✿ >20% of sales deriving from new products
- ✿ Gained a reputation as an innovative leader in the industry
- ✿ New manufacturing plant in China
- ✿ Represented in the US and other
- ✿ Are now into “high-tech” products